

Claims

What is claimed is:

- 5 1. A diamond, comprising:
 a pavilion having a plurality of facets disposed
 from a girdle to a culet; and
 a dome-shaped crown disposed above the girdle,
 wherein the dome-shaped crown has sets of facets cut with
10 monotonically decreasing angles to form a stepped contour
 from the girdle to an apex of the dome-shaped crown.
2. The diamond of claim 1, wherein each of the plurality
 of facets of the pavilion are symmetrically disposed and
15 extend continuous from the girdle to the culet.
3. The diamond of claim 2, wherein the plurality of
 facets of the pavilion are each cut to an angle of about
20 40.75 degrees.
4. The diamond of claim 1, wherein the plurality of
 facets of the pavilion totals at least sixteen in number.
5. The diamond of claim 1, wherein the pavilion is
25 substantially conical in shape.
6. The diamond of claim 1, wherein the apex of the crown
 includes a star-shaped top-center facet.

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7. The diamond of claim 1, further including:

a first set of facets disposed in the crown adjacent to the girdle and cut about 90 degrees with respect to a reference line which is tangential to the apex of the dome-shaped crown; and

a second set of facets disposed in the crown adjacent to the first set of facets and cut about 75 degrees with respect to the reference line.

8. The diamond of claim 7, further including:

a third set of facets disposed in the crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

a fourth set of facets disposed in the crown adjacent to the third set of facets and cut about 55 degrees with respect to the reference line;

a fifth set of facets disposed in the crown adjacent to the fourth set of facets and cut about 45 degrees with respect to the reference line; and

a sixth set of facets disposed in the crown adjacent to the fifth set of facets and cut about 35 degrees with respect to the reference line.

9. The diamond of claim 8, further including:

a seventh set of facets disposed in the crown adjacent to the sixth set of facets and cut about 30 degrees with respect to the reference line;

5 an eighth set of facets disposed in the crown adjacent to the seventh set of facets and cut about 25 degrees with respect to the reference line;

10 a ninth set of facets disposed in the crown adjacent to the eighth set of facets and cut about 20 degrees with respect to the reference line;

a tenth set of facets disposed in the crown adjacent to the ninth set of facets and cut about 15 degrees with respect to the reference line; and

15 an eleventh set of facets disposed in the crown adjacent to the tenth set of facets and cut about 10 degrees with respect to the reference line.

10. The diamond of claim 7, further including:

20 a third set of facets disposed in the crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

a fourth set of facets disposed in the crown adjacent to the third set of facets and cut about 56 degrees with respect to the reference line;

25 a fifth set of facets disposed in the crown adjacent to the fourth set of facets and cut about 46 degrees with respect to the reference line; and

30 a sixth set of facets disposed in the crown adjacent to the fifth set of facets and cut about 38 degrees with respect to the reference line.

11. The diamond of claim 10, further including:

a seventh set of facets disposed in the crown adjacent to the sixth set of facets and cut about 34 degrees with respect to the reference line;

5 an eighth set of facets disposed in the crown adjacent to the seventh set of facets and cut about 30 degrees with respect to the reference line;

10 a ninth set of facets disposed in the crown adjacent to the eighth set of facets and cut about 25 degrees with respect to the reference line;

a tenth set of facets disposed in the crown adjacent to the ninth set of facets and cut about 19 degrees with respect to the reference line; and

15 an eleventh set of facets disposed in the crown adjacent to the tenth set of facets and cut about 15 degrees with respect to the reference line.

12. The diamond of claim 1, wherein ones of the facets disposed in the dome-shaped crown are rectangular.

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13. A cut gemstone, comprising:

a pavilion extending from a girdle to a culet; and

25 a crown having a first set of facets disposed above the girdle and a second set of facets disposed between the first set of facets and an apex of the crown, wherein the first set of facets is cut at a first angle with respect to a reference line which is tangential to the apex of the crown and the second set of facets is cut at a second angle with respect to the reference line which is less than the first angle.

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14. The cut gemstone of claim 13, wherein each of the plurality of facets of the pavilion are symmetrically disposed and extend continuous from the girdle to the culet.

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15. The cut gemstone of claim 14 wherein each of the plurality of facets of the pavilion are cut to an angle of about 40.75 degrees with respect to the reference line.

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16. The cut gemstone of claim 13, wherein the plurality of facets of the pavilion totals at least sixteen in number.

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17. The cut gemstone of claim 13, wherein the apex of the crown includes a star-shaped facet.

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18. The cut gemstone of claim 13, wherein the first set of facets is disposed in the crown adjacent to the girdle and cut about 90 degrees with respect to the reference line and the second set of facets is disposed in the crown adjacent to the first set of facets and cut about 75 degrees with respect to the reference line.

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19. The cut gemstone of claim 18, further including:

a third set of facets disposed in the crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

5 a fourth set of facets disposed in the crown adjacent to the third set of facets and cut about 55 degrees with respect to the reference line;

a fifth set of facets disposed in the crown adjacent to the fourth set of facets and cut about 45 degrees with respect to the reference line; and

10 a sixth set of facets disposed in the crown adjacent to the fifth set of facets and cut about 35 degrees with respect to the reference line.

15 20. The cut gemstone of claim 19, further including:

a seventh set of facets disposed in the crown adjacent to the sixth set of facets and cut about 30 degrees with respect to the reference line;

20 an eighth set of facets disposed in the crown adjacent to the seventh set of facets and cut about 25 degrees with respect to the reference line;

a ninth set of facets disposed in the crown adjacent to the eighth set of facets and cut about 20 degrees with respect to the reference line;

25 a tenth set of facets disposed in the crown adjacent to the ninth set of facets and cut about 15 degrees with respect to the reference line; and

30 an eleventh set of facets disposed in the crown adjacent to the tenth set of facets and cut about 10 degrees with respect to the reference line.

21. The cut gemstone of claim 1, further including:

a third set of facets disposed in the crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

5 a fourth set of facets disposed in the crown adjacent to the third set of facets and cut about 56 degrees with respect to the reference line;

a fifth set of facets disposed in the crown adjacent to the fourth set of facets and cut about 46 degrees with respect to the reference line; and
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a sixth set of facets disposed in the crown adjacent to the fifth set of facets and cut about 38 degrees with respect to the reference line.

15 22. The cut gemstone of claim 21, further including:

a seventh set of facets disposed in the crown adjacent to the sixth set of facets and cut about 34 degrees with respect to the reference line;

an eighth set of facets disposed in the crown adjacent to the seventh set of facets and cut about 30 degrees with respect to the reference line;
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a ninth set of facets disposed in the crown adjacent to the eighth set of facets and cut about 25 degrees with respect to the reference line;

25 a tenth set of facets disposed in the crown adjacent to the ninth set of facets and cut about 19 degrees with respect to the reference line; and

an eleventh set of facets disposed in the crown adjacent to the tenth set of facets and cut about 15 degrees with respect to the reference line.
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23. A cut gemstone, comprising:

a pavilion having a plurality of facets disposed
from a girdle to a culet; and

5 a dome-shaped crown disposed above the girdle,
wherein the dome-shaped crown has a stepped contour from
the girdle to an apex of the dome-shaped crown.

24. The cut gemstone of claim 23, wherein each of the
plurality of facets of the pavilion are symmetrically
10 disposed and extend continuous from the girdle to the
culet.

25. The cut gemstone of claim 24, wherein the plurality
of facets of the pavilion are each cut to an angle of
15 about 40.75 degrees with respect to the reference line
which is tangential to the apex of the dome-shaped crown.

26. The cut gemstone of claim 23, wherein the apex of
the dome-shaped crown includes a star-shaped facet.
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27. The cut gemstone of claim 23, further including:

a first set of facets disposed in the crown adjacent
to the girdle and cut about 90 degrees with respect to a
reference line which is tangential to the apex of the
25 dome-shaped crown; and

a second set of facets disposed in the crown
adjacent to the first set of facets and cut about 75
degrees with respect to the reference line.

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28. The cut gemstone of claim 27, further including:

a third set of facets disposed in the crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

5 a fourth set of facets disposed in the crown adjacent to the third set of facets and cut about 55 degrees with respect to the reference line;

a fifth set of facets disposed in the crown adjacent to the fourth set of facets and cut about 45 degrees with respect to the reference line; and

10 a sixth set of facets disposed in the crown adjacent to the fifth set of facets and cut about 35 degrees with respect to the reference line.

15 29. The cut gemstone of claim 28, further including:

a seventh set of facets disposed in the crown adjacent to the sixth set of facets and cut about 30 degrees with respect to the reference line;

20 an eighth set of facets disposed in the crown adjacent to the seventh set of facets and cut about 25 degrees with respect to the reference line;

a ninth set of facets disposed in the crown adjacent to the eighth set of facets and cut about 20 degrees with respect to the reference line;

25 a tenth set of facets disposed in the crown adjacent to the ninth set of facets and cut about 15 degrees with respect to the reference line; and

30 an eleventh set of facets disposed in the crown adjacent to the tenth set of facets and cut about 10 degrees with respect to the reference line.

30. The cut gemstone of claim 27, further including:

a third set of facets disposed in the crown adjacent to the second set of facets and cut about 65 degrees with respect to the reference line;

5 a fourth set of facets disposed in the crown adjacent to the third set of facets and cut about 56 degrees with respect to the reference line;

a fifth set of facets disposed in the crown adjacent to the fourth set of facets and cut about 46 degrees with respect to the reference line; and
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a sixth set of facets disposed in the crown adjacent to the fifth set of facets and cut about 38 degrees with respect to the reference line.

15 31. The cut gemstone of claim 30, further including:

a seventh set of facets disposed in the crown adjacent to the sixth set of facets and cut about 34 degrees with respect to the reference line;

20 an eighth set of facets disposed in the crown adjacent to the seventh set of facets and cut about 30 degrees with respect to the reference line;

a ninth set of facets disposed in the crown adjacent to the eighth set of facets and cut about 25 degrees with respect to the reference line;

25 a tenth set of facets disposed in the crown adjacent to the ninth set of facets and cut about 19 degrees with respect to the reference line; and

30 an eleventh set of facets disposed in the crown adjacent to the tenth set of facets and cut about 15 degrees with respect to the reference line.

32. A method of cutting a gemstone, comprising:
forming a plurality of facets on a pavilion from a
girdle to a culet; and
forming a dome-shaped crown above the girdle.

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33. The method of claim 32, wherein the dome-shaped
crown has a stepped contour from the girdle to an apex of
the dome-shaped crown.

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34. The method of claim 33, wherein the plurality of
facets of the pavilion are each cut to an angle of about
40.75 degrees with respect to a reference line which is
tangential to the apex of the dome-shaped crown.

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35. The method of claim 33, further including:
forming a first set of facets in the crown adjacent
to the girdle cut at an angle about 90 degrees with
respect to a reference line which is tangential to the
apex of the dome-shaped crown; and

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forming a second set of facets in the crown adjacent
to the first set of facets cut about 75 degrees with
respect to the reference line.

36. The cut gemstone of claim 35, further including:

forming a third set of facets in the crown adjacent to the second set of facets cut about 65 degrees with respect to the reference line;

5 forming a fourth set of facets in the crown adjacent to the third set of facets cut about 55 degrees with respect to the reference line;

forming a fifth set of facets in the crown adjacent to the fourth set of facets cut about 45 degrees with

10 respect to the reference line; and

forming a sixth set of facets in the crown adjacent to the fifth set of facets cut about 35 degrees with respect to the reference line.

15 37. The cut gemstone of claim 36, further including:

forming a seventh set of facets in the crown adjacent to the sixth set of facets cut about 30 degrees with respect to the reference line;

20 forming an eighth set of facets in the crown adjacent to the seventh set of facets cut about 25 degrees with respect to the reference line;

forming a ninth set of facets in the crown adjacent to the eighth set of facets cut about 20 degrees with respect to the reference line;

25 forming a tenth set of facets in the crown adjacent to the ninth set of facets cut about 15 degrees with respect to the reference line; and

30 forming an eleventh set of facets in the crown adjacent to the tenth set of facets cut about 10 degrees with respect to the reference line.

38. The cut gemstone of claim 35, further including:

forming a third set of facets in the crown adjacent to the second set of facets cut about 65 degrees with respect to the reference line;

5 forming a fourth set of facets in the crown adjacent to the third set of facets cut about 56 degrees with respect to the reference line;

forming a fifth set of facets in the crown adjacent to the fourth set of facets cut about 46 degrees with respect to the reference line; and

10 forming a sixth set of facets in the crown adjacent to the fifth set of facets cut about 38 degrees with respect to the reference line.

15 39. The cut gemstone of claim 38, further including:

forming a seventh set of facets in the crown adjacent to the sixth set of facets cut about 34 degrees with respect to the reference line;

forming an eighth set of facets in the crown adjacent to the seventh set of facets cut about 30 degrees with respect to the reference line;

forming a ninth set of facets in the crown adjacent to the eighth set of facets cut about 25 degrees with respect to the reference line;

25 forming a tenth set of facets in the crown adjacent to the ninth set of facets cut about 19 degrees with respect to the reference line; and

forming an eleventh set of facets in the crown adjacent to the tenth set of facets cut about 15 degrees with respect to the reference line.